

No. We should revert to the unambiguous name *septentrionalis* Verity (1916, type-locality Westcliff-on-Sea) for the *P. napi* subspecies which inhabits southern England.

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References

- Bohatsch, O. 1893. Beitrag zur Lepidopteren-Fauna des Schneeberg-Gebietes. *Jber. wien. ent. Ver.*, 4: 39-58.
- Cockayne, E. A. 1952. See Thompson.
- Cockerell, T. D. A. 1889. On the variation of insects. *Entomologist*, 22: 126.
- Edwards, W. H. 1881. On *Pieris bryoniae* Ochs. and its derivative forms in Europe and America. *Papilio*, 1: 84-99.
- Frohawk, F. W. 1928. Variation of *Pieris napi*. *Entomologist*, 61: 76-77.
- Howarth, T. G. 1973. *South's British Butterflies*. London.
- Kane, W. F. de V. 1893. A catalogue of the Lepidoptera of Ireland: *Pieris napi* L. *Entomologist*, 26: 118-119.
- Kloet, G. S. & W. D. Hincks 1972. *A Check List of British Insects*, 11 (2), 2nd edition. London.
- Müller, L. & H. Kautz 1939. *Pieris bryoniae* O. und. *Pieris napi* L. Vienna.
- Schmidt, A. M. 1913. Neue, seltene Arten von *Pieris napi*. *Ent. Z.*, 27: 134.
- Schöyen, W. M. 1885. Bemaerkinnger om enkelte variationer af vore Rhopalocera. *Ent. Tidsskr.*, 6: 139-144, 214-215.
- Stephens, J. F. 1828. *Illustrations of British Entomology . . . Haustellata*, 1. London.
- Thompson, J. A. 1952. *Pieris napi* L. ab. *flava*—Kane or W. H. Edwards? *Entomologist's Rec. J. Var.*, 64: 290-291.
- Tutt, J. W. 1896. *British Butterflies*, pp. 237, 450. London.
- Verity, R. 1911. *Rhopalocera Palaearctica*, p. 332. Florence.
- 1916. The British races of butterflies. *Entomologist's Rec. J. Var.*, 28: 79.
- Wagner, F. 1903. Zur Kenntnis einiger Formen von *Pieris napi* L. *Verh. zool.-bot. Ges. Wien*, 53: 174-178.

Roosting Behaviour of the Butterfly *Papilio demodocus* Esp. on the Kenya Coast

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We here give an account of a nightly roosting area of the common African tailless "swallowtail" *Papilio demodocus* which we were able to observe between 12th and 22nd August, 1974. The roost was situated on the Watamu Beach—Mida Creek road, near the village of Watamu, about 20 km. south-west of Malindi on the Kenya coast. The Mida Creek road is parallel to the shore and runs N.E.-S.W. It is separated from the shore by a row of houses each situated in a large garden usually with shrubs and trees and each designated a "plot".

The roosting area lay immediately beside the beginning of the drive to one of the plots under an area of trees separated from the road by a wide grass verge also with a few trees. The

ground of the roosting area was covered by a large patch of herbaceous plants of the genus *Justicia* (Acanthaceae) bearing pale lilac-coloured flowers. These plants acted as the actual roost. Also within the roosting area there was a small area where domestic rubbish had been dumped. Rotting fruit on this dump was visited by male and female *Hypolimnna misippus* (Nymphalidae) but not to our knowledge by *P. demodocus*.

Originally a group of seven or eight individual butterflies, all *P. demodocus*, was seen hovering round and attempting to settle on a single *Justicia* plant about a metre high. This was at about 5.0 p.m. and thus about 1½ hours before sunset. Between 12th and 16th August a similar group of butterflies was to be seen round the same or a closely adjoining plant at any time at or after 5.0 p.m. Individual butterflies might also be observed settling on other *Justicia* plants, all of which were about the same height.

The original mass roost was only three or four metres from the front edge of the *Justicia* patch (that nearest the road). On the evening of the 16th August, however, the original plant or plants was untenanted but a second roost, possibly containing some at least of the original individuals was seen some four or five metres further into the patch under heavier tree cover. The mass roost remained at this site until the morning of 20th August.

From the morning of 20th August to that of 22nd August it was possible to visit the site at dawn, about 6.15 a.m., each day and to mark individual butterflies to discover whether they returned to the roost on subsequent days. In all eight specimens were marked, four on the morning of 20th August, two the same evening and two on the morning of 21st. In addition six specimens were captured and released after their sex and condition had been noted on the final day, 22nd August.

Of the eight specimens marked only three, all marked on the morning of the 20th, were recaptured: it seems that our visits to the roost both before and after the night of the 20th disrupted it somewhat hence the small numbers (two each) marked on those occasions, none of which was recaptured. By the morning of the 22nd, however, the roosting site was again fully tenanted.

Of the three specimens recaptured, one, an old specimen with torn hind wings, was marked and released near the second (back) roosting position referred to above. It was recaptured twice but on both occasions was resting near the front of the roost near, but to the left (N.E.), of the original roost plant. The first recapture was on the evening of the 20th, the second on the morning of the 22nd at a station outside the tree covered area. The second recaptured specimen, with beak marks on left fore and hind wings, was also recaptured at this station at the same time, having been marked and released at a point nearby but just under the tree cover. The third recaptured

specimen was also marked and released at this latter point and recaptured a few yards to the right on the morning of the 21st, the only specimen recaptured at that time. It was freshly emerged at capture.

Perhaps the most remarkable feature of all the specimens captured and released at the roosting site, fourteen in all, is that every one of them was a male. Thus we do not know that any female took part in the mass roosting behaviour, but it seems improbable. There seems to have been no correlation between success or failure in recapture and the age and condition of the marked butterflies.

Under normal circumstances the behaviour of the butterflies was similar every evening. Up to a dozen butterflies would jostle for position on a single plant. Those that were displaced or could not gain a foothold would fly away, and, if continually unsuccessful, settle singly. The only apparent attraction of the communal roosting plant was the presence of other individuals.

About a week after leaving Watamu we had the opportunity on two evenings (the 1st and 2nd September) to observe closely similar behaviour in the danaid butterfly *Amauris niavius* in the Moshi Forest near Kilimanjaro, Tanzania. In this case communal roosting took place on horizontal twigs or branches at or near ground level on the banks on either side of a forest road.

Notes and Observations

THE FERAL FOODPLANT OF LEAST CARPET, *IDAEA VULPINARIA* HERRICH-SCHAFFER. — Mr. West is much to be congratulated on his discovery of feral larvae of this species, with *Alyssum saxatile* L. as their foodplant (*Ent. Rec.*, 86:258). But in solving one mystery he has uncovered another. This plant, which is popularly known as Golden Alyssum, is not, according to the usual authorities, a British native but only at most an occasional garden escape. Records of *Idaea vulpinaria* in Kent —actually near Bexley and Eltham—go back to 1831, when *A. saxatile* must have been very uncommon even if it had been introduced at all. The recorded spread of the moth southwards in Kent and most recently into Surrey may indeed well be due to its adoption of this now common suburban rockery plant as a foodplant; but surely it must have used something else in earlier times. The early association with *Ulmus campestris* is well attested, and the narrow lane at Slade Green, where I found the moth in abundance at rest on elm leaves on 4th August, 1954, was according to my recollection a most unlikely place for any growth of *A. saxatile*: there was, indeed, little in sight except overgrown elm hedges and nettles! But, given the later onset of Dutch elm disease, the species was no doubt wise to find an alternative foodplant. — R. F. BRETHERTON, Folly Hill, Birtley Green, Bramley, Guildford, Surrey, GU5 0LE.